

«**H**ealth may not, in the absolute, be the ultimate personal good, but it tends to become it as soon as one loses it»<sup>46</sup>. In the ideal aim that the WHO has tried to attain since a few decades health, which cannot be reduced to an absence of disease or infirmity, represents a state of physical, mental and social well-being. A good health for all populations is the largely accepted objective at an international level so as to enable a sustainable economic development. Numerous instruments of international law recognize health as a human right. Paragraph 1 of Article 25 of the Universal declaration of human rights states that «every person is entitled to a standard of living sufficient to ensure his/her health and those of his/her family, in particular for food, clothes, housing, medical care and necessary social services as well». The International Pact on economic, social and cultural rights contains the most exhaustive article in international law as far as right to health is concerned. On the basis of paragraph 1 of Article 12 of the Pact the participating States recognize «the right of every person to benefit the best physical and mental state that he/she is capable of attaining». Essential medicines play a significant social role because they are an integral part in implementing a fundamental human right, i.e. that to health. Thus pharmaceutical products cannot be regarded as an ordinary good.

«The essential medicines are those that satisfy the needs of the majority of the population regarding health care. They must be available at any time in a sufficient quantity and in the appropriate pharmaceutical form.»<sup>47</sup> Their quantity and use must be adequate. The access to medicines is determined by the availability of pharmaceutical products and their economic and geographical accessibility. Availability is essentially depending upon political factors, the world trade system and the world health system. Accessibility is conditioned by the financial situation of the population and the economic and political conditions of the country. So as to ensure the access to essential medicines people must be able to obtain easily essential medicines at a convenient price and at any time. Whereas this ideal situation prevails globally in the developed countries the majority of the population in the DC's does not have access to essential medicines, at best has a partial access. The WHO estimates that by improving the access to essential medicines and to existing vaccines about 10 million lives could be saved every year<sup>48</sup>! Access to medicines in the DC's is limited by different factors: lack of resources devoted to health, absence of research and development for diseases affecting essentially DC's, weakness of local health services and high price of medicines.

The health crisis in the DC's is preoccupying: contrary to the developed countries transmissible diseases (HIV/AIDS, tuberculosis, malaria etc) continue to be a major cause of death and invalidity. The causes of the health crisis in the DC's are many and related to each other: bad nutrition, water insalubrity, lack of sanitary installations, armed conflicts, economic crises, insufficient means devoted to health, logistics problems etc. An insufficient access to essential and vital medicines is a fundamental aspect. According to the World Health Organization more than a third of the world population does not have a regular access to essential medicines. In some African and Asian countries more than half the population does not have access to them.<sup>49</sup>

## 2 Problems generated by the TRIPS Agreement

### 2.1 Limited access to essential medicines

<sup>46</sup> Guillo (2002), p.28.

<sup>47</sup> Velásquez *et al.* (1999), p.60.

<sup>48</sup> WHO (2004), p.1.

#### 2.1.1 Economic and structural inequalities

<sup>49</sup> WHO (2004).

Having no access to medicines is determined by several factors: availability of funds, demand, status of stocks, conditions set by suppliers (production time, delivery time, billing, customs procedures, quality control, distribution and storage constraints). On top of that there can be an inadequate selection and an irrational use, too high prices, a lack of structural funding and an insufficient and unreliable system of pharmaceutical procurement<sup>50</sup>. Moreover by lack of qualified staff and resources it often happens that a small number of poorly qualified persons manage the whole process. On top of the overwork caused by this situation corruption easily crops up.

The price of medicines constitutes a crucial element of the crisis. 2.8 billion human beings live with less than 2 dollars a day, out of these people 1.2 billion live with less than one dollar<sup>51</sup>. Whereas in the developed countries medicines are for most of them publicly financed through reimbursement and the insurance scheme in the DC's only a minority can benefit from such a structure. The average cover reaches 35 % of the population in Latin America, 10 % in Asia and less than 8 % in Africa<sup>52</sup>. In most DC's patients must pay cash for their medical expenses out of their own pocket<sup>53</sup>. The supply of medicines by the State remains usually selective and limited by available resources. The medicines price has therefore a direct impact on their availability. An increase in the price of essential medicines influences directly the families income and diminishes their buying power. If a sick person has to pay for a more expensive pharmaceutical product he/she will have fewer resources at his/her disposal to acquire other essential goods such as food and housing. According to WHO medicines in the DC's represent the greatest part of medical expenses of households and are in the second place in public health spending<sup>54</sup>. Governments can partially be held responsible for insufficient allocation of financial resources to the offer of essential medicines for the majority of the population.

Inequalities are striking. In developed countries the antibiotic treatment for curing a pneumonia is equivalent to a salary of 2 to 3 hours (In the DC's 50 to 90 % of pharmaceutical expenses have to be taken care of by households). The treatment of an HIV infection during a year represents 4 to 6 months salary. The majority of the costs is reimbursed. In the DC's a complete antibiotic treatment to cure a pneumonia costs the equivalent of one month's salary. If it is available the treatment for an HIV infection costs 30 years of income. Insufficient spending for health care in the DC's and the lack of sanitary infrastructures necessary for managing medicines in a safe and efficient way are elements which determine access to essential medicines.

Globally reinforcing the health system and increasing the related resources are essential preconditions for answering adequately the medical and pharmaceutical needs of the population. But it is practically impossible for countries with a large external debt and a weak economy. It is essentially due to the fact that pharmaceutical expenses and all health expenses as well are strongly correlated to the economic development of a country. Increasing health expenses is therefore conditioned by an increase in the GDP. The GDP fraction devoted to

<sup>50</sup> WHO (2002a), p.20.

<sup>51</sup> UNDP (2002).

<sup>52</sup> UNDP (2002), p.5.

<sup>53</sup> WHO (2002).

<sup>54</sup> WHO (2002).

public health expenses in the DC's only represents 25 to 50 % of those in industrialised countries.<sup>55</sup>

Often medicines which are not essential are largely provided. Resources which are already limited are therefore exhausted and used in an inefficient way. In the DC's insufficient infrastructures pose a considerable problem which can lead to cheap medicines not being used or badly used thus contributing to the emergence of a virus or of pharmaco-resistant pathogens<sup>56</sup>. Inefficient and even noxious use of medicines is often due to an insufficient training of the supplier, a biased information and fallacious beliefs among suppliers and consumers.<sup>57</sup>

The price of medicines from which an equitable access depends is determined by the market and state interventions. A stronger competition reduces prices to levels making essential medicines more accessible. For example the competition created by generic products enables the price of medicines to be reduced by 75 to 95 %. In the United States the average price of a medicine falls to 60 % of its initial value when a competitor enters the market and falls to 29 % when ten producers enter into competition<sup>58</sup>. Price reductions can also be obtained through therapeutic competition among several products of a branch belonging to the same therapeutic class<sup>59</sup>.

Economists think that a perfectly competitive market must meet several conditions:

- 1) competitors on the market must be numerous and unable to influence prices;
- 2) products must be homogeneous and perceived by potential customers as substitutable;
- 2) mobility of resources must be perfect and the market open to other competitors;
- 2) the market must be transparent so that the information be available.

Thus only are market prices determined by supply and demand. In reality no market meets entirely these conditions but the model helps to determine how imperfect a market is. In an open market a producer cannot set the price of a product above its marginal cost if he wants to attract new producers who will drive prices down. In setting a high price in a competitive market a producer undermines his long term own profit and thus encourages supplementary offers.

Any market intervention on the market upsets free competition and prevents prices from being set at their "natural" equilibrium. The adoption of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) which reinforces and extends at a world level the patents protection on pharmaceutical products and processes distorts free competition<sup>60</sup>. In protecting the owner a patent enables him to increase the price of a medicine and to keep it at an artificially high level up to the patent expiry. Having the capability of excluding copies the producer of a patented product will attempt to set prices higher than otherwise possible and to enjoy thus the profit of a monopoly. By granting monopoly rights patents play an essential role in setting

<sup>55</sup> OMS (1998).

<sup>56</sup> BCIPR (2002), p.31.

<sup>57</sup> WHO/EB (2003).

## 2.1.2 The price of medicines: imperfect competition

<sup>58</sup> WHO(2004), p.3.

<sup>59</sup> *Ibidem*.

<sup>60</sup> OMC *et al.*(2002), p.1.

the prices of new patented medicines as it is the case for example for essential medicines treating HIV/AIDS.

So it can be noticed that applying a protection by patent causes automatically an increase of the payments by the DC's to the pharmaceutical companies of the USA, Europe or Japan. These financial movements out of a country are a direct consequence of the monopoly situation enjoyed by the patent holders<sup>61</sup>. Monopolising the market widens thus the gap between the industrialised countries and the DC's at the access level and limits the local manufacturing capabilities. The health policies aiming at a larger use of generic products reduce costs substantially when a patent expires.

<sup>61</sup> QUNO (2001), p.7.

### 2.1.3 Research & development on DC's diseases

Patents constitute a protection for the research and development sector (R & D). In the pharmaceutical field R & D costs are particularly high and thus call for considerable investments<sup>62</sup> which the patents system permits to recover. Patents are supposed to stimulate an innovative spirit, encourage progress and promote innovation.

The apparition of generics is the logical consequence of the protection end by patent. But the introduction of a generic substitute on the market is the more likely since the potential market is relatively large and a sufficient number of sales can be anticipated to cover the initial investment<sup>63</sup>. Very little effort is put into R & D for the diseases of the poorest populations. For pharmaceutical industries the poor do not generate enough income. Pharmaceutical research in the private sector is driven by commercial considerations. If the market demand is weak it is of little interest to devote resources to these needs. The populations of the poor countries do not represent a sufficient market to generate an R & D effort which answers their needs<sup>64</sup>. The DC's account for 80 % of the world population but represent only 20 % of the global pharmaceutical market<sup>65</sup>.

The DC's depend on generics. With the introduction of a protection by patent they are deprived of a good quality source at a low price. As a group the DC's are net importers of technology, the greater part of which is supplied by developed countries<sup>66</sup>. The application of the dispositions of the TRIPS Agreement reinforces the value of patents and benefits mainly the developed countries which are patent holders. The application of patent rights in the world gives a considerable advantage to holders of patent rights at the expense of users of technology and protected goods from the DC's. The high price of new medicines blocks the funds and the energy devoted to the research of a new technology and the development of a product or process obtained.

The R&D carried out by the private sectors is motivated by the size of the potential market and not by the protection levels of intellectual property. Even if a large part of the essential medicines created for the markets of the North are also important for the markets of the South the demand for medicines from the DC's shows characteristics clearly different from those of the developed countries<sup>67</sup>. There is an urgent need of increased investments in diseases which

<sup>62</sup> Velásquez *et al.* (1999), p.61.

<sup>63</sup> Scherer (2001), p.6.

<sup>64</sup> MSF (2003), p.6.

<sup>65</sup> MSF (2001), p.16.

<sup>66</sup> BCIPR (2002), p.21.

<sup>67</sup> Correa (2001), p.19.

affect essentially the DC's and which afflict every year millions of people. According to a WHO estimate less than 5 % of the funds devoted to pharmaceutical R&D are concerned with diseases which prevail mainly in the DC's<sup>68</sup>.

In the TRIPS Agreement nothing compels the pharmaceutical industries to use the economic rent received thanks to the supplementary protection for research purposes on diseases of the DC's. No mechanism exists so as to avoid that the supplementary income be spent in R&D on sophisticated medicines meant essentially for consumers of the North. The pharmaceutical firms are free to set the income fraction which will be devoted to promotion and advertising. There is no limit to the level of executive compensation. The pharmaceutical industry enjoys a public policy instrument which proves very powerful – the TRIPS Agreement.

On the other hand the protection by patent represents a high hurdle for research and development in the DC's. Ideally the production of generics should enable the DC's to bypass the difficulty and cost of research and to decrease considerably the pharmaceutical costs. The investments accompanying the introduction of a generic substitute are much lower than those called for the discovery and the development of a new medicine. But the DC's contribution is hampered by the high level of protection which bars any potential manufacturer from entering the market and thus prevents these countries from developing and maintaining a local pharmaceutical industry ; it also prevents them to have at their disposal generics adapted to the local demand and at affordable prices.

Lacking local pharmaceutical industries the DC's also find themselves deprived of the possibility of using some flexibilities of the TRIPS Agreement, in particular compulsory licences. Indeed granting a compulsory licence is dependent upon the existence of a local pharmaceutical production capacity<sup>69</sup>. If a local good quality production is economically possible and supported by good manufacturing processes it can lead to lower price levels.

In facilitating the introduction and promoting the generics competition the DC's could limit the costs and distortions of the patents system in favour of the population, thus facilitating the supply of medicines. Technology transfer can ease this process provided there is a receptive environment. In India, Brazil and Thailand the generics firms offered to low and medium income countries their help for producing local retroviral medicines through technology transfer under South-South cooperation.<sup>70</sup>

HIV/AIDS is the most important cause of mortality in the DC's. Together with tuberculosis and paludism which account for almost as many victims these diseases caused six million deaths in 2001 and generated debilitating diseases for millions of people<sup>71</sup>. The existence of treatments does not slow down this tendency. These treatments are only accessible if the people can have at their disposal health services capable of delivering them. The treatment of AIDS by antiretroviral (ARV) medicines or by medicines treating infections associated

<sup>68</sup> OMS (2001b), p.79.

<sup>69</sup> Musungu *et al.* (2004), p.3.

<sup>70</sup> WHO (2004), p.4.

### 2.1.4 Supply difficulties

<sup>71</sup> OMS (2002b).

to this disease is dependent upon the economic accessibility. The minimum annual costs of ARV therapies exceed by far the annual health expenses per capita in most DC's.<sup>72</sup> The present health expenses per capita in the low income DC's are about 23 dollars per year, but the cheapest ARV triple therapies cost at present 200 dollars per year<sup>73</sup>. In 2002 WHO estimated that less than 5 % of those who needed a treatment for HIV/AIDS received ARV medicines, i.e. 230 000 persons out of 6 millions<sup>74</sup>. With an increase in treatment costs the situation can only worsen.

There are many different supply systems but whichever system is adopted the main phases consist of:

- 1) selecting medicines with the best cost/effectiveness ratio in agreement with the national list of essential medicines;
- 2) specifying the products (therapeutic and galenic formulation, packaging...);
- 3) quantifying the needs on the basis of information supplied by distributors and local health providers as a function of the stocks status, of past consumption, of epidemiological tendencies, etc.;
- 4) preselecting potential national and/or international suppliers, who will be sent an invitation to tender;
- 5) calling for tender, evaluating (technically and financially) the proposals received, negotiating and signing contracts;
- 6) carrying out the quality control of the medicines purchased;
- 7) distributing locally, storing, managing stocks;
- 8) prescribing and using the medicines.

Most of the DC's must rely upon imports to obtain medicines. As long as there is no patent protection the importing countries have the possibility to import generic products. According to the dispositions of the TRIPS Agreement the new medicines and those for which patents were requested after 1994 will be patentable and consequently the possibility of importing them will decrease with time<sup>75</sup>. Compulsory licences could represent an effective instrument for counterbalancing the exclusive rights of patent holders and for acquiring cheap generic versions of the new patented medicines. When the production capabilities of a country are insufficient or inexistent using this instrument will prove problematic. A country without a production capability or with an insufficient capability will be forced to turn to manufacturers of a third country to acquire the said medicine. On the basis of the territory principle (the patent validity is limited to the national territory) the importing country will become dependent upon the status of the said patent in these third countries. To obtain such a medicine abroad this product must neither be patented in the exporting country nor be covered by a compulsory licence<sup>76</sup>. Article 31, paragraph f imposes a supplementary condition since it states that «any use of this kind (compulsory licence) will be authorised mainly for supplying the home market of the Member which authorised this use». The main part of the production must be destined to internal consumption and must be sold on the home market. Cooperation among the DC's could constitute an effective tool to balance economical and political powers. A well coordinated action of the DC's pooling their orders of medicines can enable them to increase their buying power on the world market.

<sup>72</sup> BCIPR (2002), p.31.

<sup>73</sup> MSF (2002).

<sup>74</sup> OMS (2002c).

<sup>75</sup> BCIPR (2002), p.36.

<sup>76</sup> Reinhard (2002), p.2.

It is thus essential that each country has at its disposal a legal framework governing the whole process, i.e. in particular intellectual property rights in accordance with the TRIPS Agreement for member countries of WTO. A national medicines policy must be formulated by the public health authorities and an essential pillar of this policy is the compilation of a national list of medicines. Too often legal framework and health policy are inadequate which together with a lack of infrastructures, of financial resources and of qualified staff impede the smooth supply and availability in adequate quantity of medicines of good quality at accessible prices at the proper place and time.

Market segmentation and setting of differentiated prices confer to the countries a broader access to essential medicines. From the economic point of view the setting of differentiated prices constitutes a rational way of maximising profits for products which are sold at the same time on a low income market and a high income market. Differentiated prices should also enable poor populations to obtain the cheapest products. Setting fair prices is essentially important when it concerns new medicines which are still protected by patents or other instruments which grant exclusive rights to a manufacturer on this market. Adapting prices to the development level and buying power of the purchasing country not only makes it easier for DC's to access medicines but it also enables suppliers to sell a larger part of their production<sup>77</sup>.

<sup>77</sup> WHO (2004), p.3.

The high cost of treatments in the DC's and in particular of medicines represents the main obstacle preventing the population from having access to the health service. Many new medicines essential for the survival of millions of people are already too expensive for the majority of the population. Moreover the investment in R & D destined for diseases of DC's is paralysed. These countries do not represent sufficiently profitable markets to motivate investments aiming at fighting diseases such as paludism or tuberculosis. Applying the TRIPS Agreement will cause another price increase whereas an increased investment destined to the health needs in the DC's remains unlikely despite a higher protection level of intellectual property<sup>78</sup>.

## 2.1.5 Conclusion

Traditional and complementary medicines are often more easily accessible and confidence in experts of traditional medicine, especially in rural and remote areas, is greater, which is why they are consulted by the majority of patients. Traditional medicine can thus play a considerable role in the health system for some aspects of health care<sup>79</sup>.

Access to treatment of diseases in DC's is problematic. Either medicines are too expensive, have lost their effectiveness because of resistance to pathogenetic agents or they are not adapted to local conditions and constraints. Problems of logistics, storage, quality, selection, production, inappropriate use and prohibitive prices limit the medicines availability.

The nations which will be most affected by the new TRIPS environment will be those which will have developed a domestic generics industry as well as

<sup>78</sup> Ellen *et al.* (2003), pp.41,42.

<sup>79</sup> WHO (2004), p.4.

## 2.2 Essential medicines: the programme in danger

those without a domestic production which will have actively encouraged the import and use of generic substitutes. The impact of patents systems will be felt in particular in the countries which have set up solid generics industries with a certain competition level, thereby keeping prices at a low level. The reduction in competition on the market and the increase of imports represent a significant cost to the consumers and producers of medicines. Consumers and states have to pay more for essential medicines that are protected by a patent whereas potential manufacturers are barred from entering the market. DC's can take advantage of protection by patent provided they have the capability to obtain licences granted by multinational firms<sup>80</sup>.

Created in 1977 and having become «*special programme*» of WHO in 1979 the Action Programme for Essential Medicines has seen resounding successes all along its existence. It was designed so that «all could acquire, wherever they are and at the required time, medicines of good quality, effective and safe at affordable prices and which they use in a rational way»<sup>81</sup>. Today 156 countries have established a list of essential medicines, among which WHO suggest including generics<sup>82</sup>. These are preferable because almost always<sup>83</sup> cheaper than the *original* ones, the reduction being 50 to 70 %<sup>84</sup>. Recently WHO calculated that the percentage of the world population having access to essential medicines has doubled over the last twenty years<sup>85</sup>.

However it would appear that the advent of the TRIPS Agreement could put into question the efficiency of the Programme by impinging on the availability of and access to generic medicines. If one considers that generic medicines can cover up to 60 % of the market even in an industrialised country such as Denmark or 20-40 % in the USA, in England, in Germany and in the Netherlands<sup>86</sup>, it is easy to understand the fears of the national health directors. On the lists of essential medicines many generic products are found and it is estimated that in any case for 300 of the non generic essential medicines the patents will soon expire<sup>87</sup>, what would make it possible to produce them locally as generics. The extension to 20 years of the protection duration by patents derived from the TRIPS Agreement would delay the possibility of producing these medicines in their generic form «as is the case for any product being part of a monopoly and that the firms making generic products will have to wait a longer time before being able to manufacture such a product and sell it at an accessible price.»<sup>88</sup>

Since active or intermediate principles can be patented just like finished products the whole local production is jeopardised with the TRIPS Agreement<sup>89</sup>. It is the more worrying as «an emerging market of generic medicines in a certain number of DC's represents successful social policies, which might be difficult to duplicate with the TRIPS Agreement»<sup>90</sup>. Extending the life span of patents to twenty years entails great risks for the WHO programme for Essential Medicines. Access to the products for the populations could likely be still more limited<sup>91</sup> because of the price and restricted choice of products ; supply would face limitations due to the apparently inevitable price increase; rational use of adequate products is far from being assured, thus causing serious risks of a

resurgence of certain diseases. To cut a long story short «the market [...] normally shows costs and private profits at the expense of social costs and profits. For this reason an open market cannot be expected to go towards social objectives such as equity (in fact such markets could ultimately stimulate income inequalities causing in turn greater disparities)»<sup>92</sup>. Indeed governments can use the legal dispositions foreseen by the TRIPS Agreement «so as to avoid the excessive use of intellectual property rights by their holders»<sup>93</sup>, but the legal constraints which they contain limit their ability to act and offer many guarantees and a great latitude for manoeuvring to the other part. For example the European Union could easily summon Canada before the WTO body for dispute settlements for its «*excessive*» exploitation by this country of the «*Bolar*» exceptions; Canada carried out tests in view of producing a generic drug before the expiration of its patent and creating stocks of this drug. The special group stated that it was not allowed for a state to create thus a stock of generics before the patent expiration of the original drug<sup>94</sup>.

In summary it can be stated that to this day the WHO Action Programme for Essential Medicines is in danger. All its main objectives are directly threatened by the increased patent protection, be it access, supply, rational use, quality or choice of products. Compulsory licences, exhaustion of rights, parallel imports or Bolar exceptions (which can authorize production tests of a patented medicine before the relevant patent expires and before being able to produce it as a generic drug for the local market) will not serve much purpose if there is no real will of all parties concerned to maintain the good results that have been achieved in terms of health by this programme during the last thirty years.

The commercial interests of the major pharmaceutical firms which are supported by WTO seem to be in opposition or at least at variance with the health objectives of WHO and the national health services. This discrepancy is found within a deeply unbalanced situation between industrialised countries and DC's in fields of research and production and in the access to pharmaceutical products granted to populations as well. All these elements deserve further examination in view of better understanding and foreseeing the evolution of this international problem.

First it is worth recalling briefly the motivations which led to the elaboration of this Agreement. By introducing the intellectual property rights into the action programme of the Uruguay Round the industrialised countries were aiming at reducing counterfeiting of several items among which medicines. The profit losses were important for the main firms, especially regarding the amortization of R&D costs; officially the protection of intellectual property related to pharmaceutical products was put forward and formalised in view of protecting these costs and promoting technology transfer to the DC's. Thanks to a major protection granted to medicines the well-being of populations could have been improved, according to the authors of the present Agreement, through a wider spectrum of products and better protected from any bad imitation noxious to the health of consumers. Among other problems the «*brain drain*», i.e. the highly qualified staff, from the DC's to the industrialised countries would have been slowed down after an improvement in the working con-

<sup>80</sup> BCIPR (2002), p.38.

<sup>81</sup> OMS (1995), p.20. The site of Médecins sans Frontières, www.accessmed-msf.org (in English), gives a lot of useful information on essential medicines.

<sup>82</sup> OMS (2000), Essential medicines are defined as those chosen by WHO for its list of «appropriate for local pathologies», whereas generic medicines are defined as those which are not (or no longer) covered by a patent. The two terms are often used as synonymous, which sometimes causes interpretation difficulties. As for the importance of generics on the market, see Mamou (2004).

<sup>83</sup> OMC/OMS (2002), p.104.

<sup>84</sup> WHO (1996), p.52.

<sup>85</sup> OMS (1999), p.70.

<sup>86</sup> WHO (1996), p.55.

<sup>87</sup> OMS/OMC (2002), p.106. Note that the USA, Israel, Canada, Hungary and Australia registered diligently in advance a certain number of generics.

<sup>88</sup> OMS (1999), p.27.

<sup>89</sup> OMS (1995), p.59. *Active or intermediate principles* are all substances which are essential in production of a patented medicine and which can as well be covered by a patent.

<sup>90</sup> OMS (1999), p.20.

<sup>91</sup> «In the developing countries medicines are today so expensive that they represent between 25 and 70 % of the total health expenses, against less than 15 % in the high income countries.», OMS (2004), p.2.

<sup>92</sup> OMS (1998), p.23.

<sup>93</sup> Article 8 (Principles), point 8.2.

<sup>94</sup> Decision N° WT/DS114/1.

## 2.3 Towards confrontation or collaboration?

ditions in the underprivileged states. Moreover a network of regional organizations for the defense of intellectual property was reinforced: the African Regional Industrial Property Organization (ARIPO) and l'Organisation Africaine de P.I. (OAPI), respectively active since 1976 in East Africa and since 1977 in West Africa, have seen an increase in their members and number at present 29 Sub-Saharan countries; to this day in Africa only Angola and Erythrea do not have a regime of intellectual property for medicines<sup>95</sup>. In South America the Andean Pact Countries promoted the adoption of similar I.P. rules for Bolivia, Colombia, Peru, Venezuela and Ecuador.

The advantages brought about in terms of health for the populations of these countries should not be neglected. However it is indispensable to consider a series of accurate data before passing any judgment on such a controversial topic. A WTO<sup>96</sup> study raises doubts as far as positive fall-outs for pharmaceutical laboratories of DC's are concerned when these laboratories have already got the necessary infrastructures at their disposal : when the costs destined to R&D only represent 20 % of a firm's income it is reasonable to question which firm in a DC can benefit from an increase of funds for R&D bearing in mind that the production cost of a new medicine will be in excess of 500 million dollars US<sup>97</sup>?! Such a sum can only be supplied by laboratories of industrialised countries which, among other things, will orientate their research towards the production of medicines able of curing with priority diseases of their country, where markets assure a constant profitability with respect to production costs. Undeniably the protection granted to the R&D sector only benefits the laboratories of the richest firms.

The interests of the multinational pharmaceutical firms and those of the States oppose each other; the former ask WTO to intervene globally so as to protect their R&D sectors and the latter refer to WHO fearing to have to limit the access to essential medicines of their populations. «No discrimination» against «Health for all», the fundamental principles of WTO and WHO respectively, face each other here. At present there are few reliable studies at our disposal for evaluating precisely the real, quantified and documented impact of the Agreement effects on the price of pharmaceutical products; such an evaluation would require quite a lot of time. However some experts of WHO and IMF share the same preoccupation. Dr Pascale Brudon, of the Programme for Essential Medicines, states that even if the price increase is not noticed immediately it will be inevitable<sup>98</sup>. According to his analyses M. Subramanian of the IMF thinks that in Argentina after the standards of the TRIPS Agreement came into force the sale prices of pharmaceutical products have increased by 71 % and that the consumption has decreased by 50 %<sup>99</sup>. Nevertheless it would be unfair to attribute all the causes of limited access to the extension of the patent protection. It is correct to recall that several measures can be envisaged in view of reducing sale prices. The Health Ministries can: check prices at a national level; negotiate reductions when purchasing large quantities of medicines; reduce their import taxes; facilitate the information on the ingredients used for production; limit the supply and distribution costs; all this accompanied by a relevant selection and rational use of medicines<sup>100</sup>.

Words can turn into good indicators which can reveal the interests, which are

sometimes hidden, of the different parties. After close examination it is possible to distinguish the various points of view of this problem motivating the respective positions. So it can be shown that WTO takes health into account at the level of principles. On the basis of old GATT rules WTO foresees that its members have the right to determine the health protection level that they deem appropriate<sup>101</sup>. Paragraph 6 of the Doha Declaration reminds us that «the WTO rules and the health policies must go hand in hand»<sup>102</sup>, what underlines efficiently the gap between the principles of the TRIPS Agreement and its objectives, among which no health problematics is found. Here a lacuna is to be filled since health is a fundamental human right, contrary to trade. In parallel it is to be deplored that the term «trade» is only present in the WHO documents to underline fears regarding the future: «There are undoubtedly important commercial questions which call for an examination from the public health point of view. WTO does not have the required competence»<sup>103</sup>. The 1996 world Assembly of WHO can still be quoted for «asking for a report on the impact of the WTO activities regarding pharmaceutical national policies and essential medicines»<sup>104</sup>. This absence of reciprocal recognition between WTO and WHO derives from a poor knowledge of the principles and objectives of the other. It would be most desirable that in the coming official documents of these organizations the following terms could be found: *health and trade, access to medicines and protection of patented products*, without omitting that of *populations*. In the future one should not read any more statements such as those of Mssrs York and Grubb, Novartis executives, certainly ignorant of the facts if not full of bad will when saying «it is not allowed to grant compulsory licences in a certain particular sector such as that of medicines»<sup>105</sup>; «the Less Developed Countries [...] whose development level is such that they are unlikely to represent important markets even in ten years time»<sup>106</sup> can still not rely on technology transfers because «pharmaceutical industries cannot register patents in each country and an improvement of patent protection in these countries is unlikely to be of a practical importance»<sup>107</sup> or still «it is high time that India does away with its nefarious postcolonial mentality and joins up to the other Asian countries which understand that economic development goes hand in hand with a strong patent protection»<sup>108</sup>. These quotations speak for themselves.

The legal dispositions of the Agreement meant to «prevent the excesses of Intellectual Property rights»<sup>109</sup> have been mentioned and described; they are visibly in favour of the health services of the DC's. Though very few such countries knew how to use them and benefit from them up to now<sup>110</sup> compulsory licences, «Bolar» exceptions and parallel imports are also a matter for discussion between WTO and pharmaceutical firms on one hand and WHO and governments on the other hand. The managers of some firms do not question the use of these exceptions but their very existence: «clearly granting discriminatorily compulsory licences must be suppressed»<sup>111</sup>. It even happened that the WTO dispute Rules were activated. In 1997 39 pharmaceutical firms reported the discriminatory use of the standard on the parallel imports that South Africa exercised in its fight against HIV/AIDS. This legal controversy ended in 2001 and was a success for the Pretoria government. «From now on it is urgent to realize the possible consequences of the WTO agreements, in particular of the TRIPS Agreement in the pharmaceutical field and to fill the legal gaps in the agreements»<sup>112</sup>. Harmonizing the trade and health questions in these agreements is not yet complete.

<sup>95</sup> Thorpe (2002), Tankoano (2002).

<sup>96</sup> OMS/OMC (2002)

<sup>97</sup> *Ibidem*, p.102.

<sup>98</sup> IUED (1998), p.93.

<sup>99</sup> OMS (1999), p.98.

<sup>100</sup> Thorpe (2002), pp.97 and 105.

<sup>101</sup> *Ibidem*, p.33.

<sup>102</sup> *Ibidem*, p.33.

<sup>103</sup> Mrs Gro Harlem Brundtland, director-general of WHO, OMS (1999), p.73.

<sup>104</sup> *Ibidem*, p.7.

<sup>105</sup> IUED (1998), p.106.

<sup>106</sup> *Ibidem*, p.109.

<sup>107</sup> *Ibidem*, p.109.

<sup>108</sup> *Ibidem*, p.112.

<sup>109</sup> Own words of WTO, as pronounced by Phil Thorpe, Thorpe (2002), p.2.

<sup>110</sup> *Ibidem*, p.23. 60 % of DC's have legalised the regional and national exhaustion right, 40 % the international one, but 80 % are ready for the Bolar exceptions.

<sup>111</sup> See note N° 70.

<sup>112</sup> OMS (1999), p.34.

### 2.3.1 Conclusion

To conclude this chapter devoted to topics of confrontation which divide the two camps to this day we propose a series of initiatives aiming at reducing the gap and finding a common ground. First the common objective presented by a joint study of WTO and WHO: «the human sustainable development»<sup>113</sup>. Let all the concerned parties realize that at the beginning of this second millenium, characterized by a forced globalization and the domination of the neoliberal trade logic no party would be able to take trade laws out of its short or medium term initiatives; on the other hand it is irresponsible to ignore the resurgence of large epidemics of paludism, tuberculosis and HIV/AIDS and the repercussions on an access to medicines which is already endangered for a third of the world population<sup>114</sup>.

How to separate economic growth and good health status of a nation? How can a State be forced to choose one or the other? How to avoid that the WTO standards be perceived as an obstacle to the access to medicines? Perhaps in improving the particular status devoted to health questions and transforming the exceptions into real dispositions of the TRIPS Agreement. Perhaps in recognizing the use of patents as an increased protection of the R&D sector, even for that of generics manufacturers, but that this research effort is more oriented towards fighting the diseases prevailing in DC's. Again a mutual recognition becomes necessary at the normative level (more health terms in the WTO texts and more trade related terms in the WHO resolutions) and at the functional level as well. The creation of intersector Committees and Working Groups is already encouraged by WHO and WTO<sup>115</sup>, so that synergies can be arrived at and complementary measures of form and substance can be promoted. For this purpose the presence of WHO inside decision making bodies of WTO should also be reinforced. A «Committee for access to medicines compatible with trade» should possibly be envisaged.

Priorities of States and of WHO (Social priorities)	Priorities of firms and of WTO (Economic priorities)
<ul style="list-style-type: none"> <li>- Guarantee access to medicines;</li> <li>- improve the legal dispositions at the disposal of DC's inside the TRIPS Agreement;</li> <li>- limit the price increase of medicines;</li> <li>- promote health for all.</li> </ul> <p><b>Price control, Access, Health</b></p>	<ul style="list-style-type: none"> <li>- Extend the duration of patents;</li> <li>- reduce the impact of legal exceptions present in the Agreement;</li> <li>- increase financing for R&amp;D;</li> <li>- stress the principle of non discrimination (countries cannot establish any discrimination between their commercial partners).</li> </ul> <p><b>Earning power, Profit, Growth</b></p>

Proposals for easing present tensions
<ol style="list-style-type: none"> <li>1) Favor a greater mutual recognition between WHO and WTO, each organization attaching a greater importance to the priorities of the other in its respective texts;</li> <li>2) set up more intersector working groups between the two Organizations;</li> <li>3) carry out more technical studies as to the impact of the Agreement on the price of medicines.</li> </ol>

<sup>113</sup> OMS/OMC (2002), p.5.

<sup>114</sup> *Ibidem*, p.17.

<sup>115</sup> *Ibidem*, p.167

It is useful to give an overview of the present situation as far as R&D and the production of medicines and vaccines for DC's is concerned.

WHO thinks that at present a third of the world population does not have access to essential drugs and that more than 50 % of the inhabitants of the poor countries of Africa and Asia do not even have access to the most elementary essential drugs. Access to essential drugs and vaccines depends on four determining elements: rational selection and use, sustainable financing, reliable supply systems and affordable prices<sup>116</sup>.

Price is thus one of the critical factors for access to essential drugs and vaccines in particular in the DC's. But two other critical factors also play a role: delay in R&D on diseases which affect mainly the DC's<sup>117</sup>; and the low interest in producing medicines and vaccines for fighting or immunising against such diseases.

This is due to the fact that the vast majority of medicines and at least a part of the vaccines at present on the market come from private pharmaceutical industries. These are submitted to imperatives of cost effectiveness and in general have neither the need nor the will to provide a large access to medicines and vaccines related to «neglected» or «forgotten diseases», which concern essentially hardly solvent and thus little cost effective markets.

In a detailed presentation of this unbalance between industrialised countries and DC's<sup>118</sup>, Bernard Pecoul, director of the Campaign for access to essential drugs of Médecins sans frontières, underlined two significant data:

- 1) between 1975 and 1999, 1393 new medicines (not necessarily essential) were put on the market, out of which only 13 (i.e. less than 1 %) related to tropical diseases and three related to tuberculosis;
- 2) out of these 13 medicines related to tropical diseases five were the result of veterinary research, two were developed by the United States army and three only were the result of "traditional" R&D. Finally two were only adaptations of preexisting medicines.

In the DC's one is confronted to the absence or insufficiency of R&D and production of pharmaceutical products necessary for answering the peoples' needs and managing the public health policies.

As far as R&D is concerned the diseases in which the pharmaceutical industry invests most in terms of efforts and budgets are the «universal diseases» (cancers, cardio-vascular, metabolic, articular affections...), which afflict the whole world population but much more the industrialised countries and the «life style related diseases» (impotence, obesity, stress...), which are almost exclusively treated in the industrialised countries. To a certain extent there are still «disappeared diseases» (e.g. paludism, tuberculosis) which have for a long time been regarded as eradicated in the industrialised countries and which still afflict mainly the DC's; they still constitute today a restricted market for the pharmaceutical industry.

Finally there are «neglected diseases» and «ignored diseases»<sup>119</sup> (sleeping sickness and Chagas disease, Burundi ulcer, leishmaniosis, leper...) which afflict mainly the DC's<sup>120</sup> and for which R&D and the production of adequate medicines are almost null<sup>121</sup>.

## 2.4 Are only "diseases of the North" treated?

### The TRIPS Agreement and the "neglected" diseases in the poor countries

#### 2.4.1 The present situation

<sup>116</sup> *Ibidem*, p.17; see also OMS (2000).

<sup>117</sup> These diseases will be referred to as neglected or forgotten diseases.

<sup>118</sup> Pecoul (2002).

<sup>119</sup> WHO (2005).

<sup>120</sup> See in particular Pecoul (2005).

<sup>121</sup> See the page of the recent Drugs for neglected diseases initiative (DNDi), [www.dndi.org](http://www.dndi.org).

### A. Research and development

We have seen that only 1 % of the medicines developed during the last quarter of the XX<sup>th</sup> century was destined for treating tropical diseases. This remark is worth all the speeches of the pharmaceutical industry<sup>122</sup>. On the other hand less than 10 % of the world medical research is oriented today towards the diseases which prevail in the DC's despite the fact that these represent close to 90 % of the world population<sup>123</sup>. The ten largest world pharmaceutical firms devote less than 5 % of their R&D budget to the three most lethal pandemics : paludism, tuberculosis and AIDS. As far as the two world leaders are concerned, Pfizer (USA) and Glaxo-Smithklein-Beecham (UK), less than 1% of their R&D budget is devoted to them<sup>124</sup>. As for the «neglected diseases» in 2002 they only received 0.0001 % of the global research effort<sup>125</sup>.

### B. Production

As far as production is concerned the favourite medicines of the laboratories are those that yield more than a billion dollars per annum (*blockbusters*)<sup>126</sup>. Conversely manufacturing those which treat less profitable diseases is often suspended. It is worth giving here two concrete examples:

- 1) The oily Chloramphenicol - a remedy easy to use and effective against the bacterium generally responsible for epidemics of meningitis in Africa - stopped being produced for reasons of non profitability in 1995. Only thanks to pressure from MSF and the Red Cross its production was restarted in 1998 by a non-profit making organization to which the manufacturer accepted to transfer his technology<sup>127</sup>.
- 2) The Eflornithine (Ornidyn), treating the sleeping sickness, was finalised in 1985. The American firm Merell Dow later on suspended its production. In January 2000 MSF hoped to restart production - at least partially. Eventually the medicine will be saved because it is part of the composition of Vaniqa, a depilatory facial cream<sup>128</sup>.

The previous considerations describe the present unbalanced situation between industrialised countries and DC's in the field of public health. Of course this situation has existed for a long time and thus predates the TRIPS Agreement. But it is now important to analyse more specifically the foreseeable consequences of the Agreement on this unbalance regarding R&D, production and access to medicines and vaccines for diseases affecting mainly DC's. Can a reduction or on the contrary a worsening of this unbalance be expected<sup>129</sup>? It is sensible to ask the question whether an increased protection of the intellectual property rights is going to stimulate positively in the future the private R&D and production (essentially concentrated in the industrialised countries) related to «neglected and forgotten diseases». The partisans of the Agreement say so, their main argument being that abiding by the patents in the DC's - and the profits thus guaranteed on the DC's markets - can only stimulate the interest of pharmaceutical industries for these diseases and these markets.

Let us quote here in particular a joint study published by the WHO and WTO secretariats: «When the incidence of the protection given by patents on the access to medicines and vaccines is evaluated, the balance must be analysed in the field of patents between:

- 1) the encouragement effect on the discovery, implementation and marketing of new medicines caused by the patent and its incitement to R&D;
- 2) the limitation effect on access to existing medicines and vaccines»<sup>130</sup>

Regarding the R&D encouragement if the positive role of protection by patents is generally admitted it is arguable to which extent this protection constitutes a supplementary encouragement in the DC's. In this respect two questions crop up: firstly to which extent a world prescription with the aim of protecting the inventions of pharmaceutical products at the level of TRIPS standards does boost the general level of incitements to R&D for diseases in general and, secondly to which extent does such a prescription act upon on the incitements in the case of diseases prevailing in the DC's?

On the other hand even after the TRIPS Agreement has been implemented one is worried that the patent system does not constitute a sufficient incitement to R&D for neglected diseases<sup>131</sup>. Indeed it seems that the economic and social conditions of most DC's make unattainable the hope for a positive effect of the patents system on the health situation of DC's. The profitability of a market, much more than its possible abiding by IP rights, seems to be the determining factor for the choice and investment level in R&D and production of pharmaceutical products. In such a context explicit and appropriate health policies going beyond IP rights would be necessary for certain resources and capabilities of the pharmaceutical industries to be allocated to R&D for «forgotten diseases».

Several analyses of this problem are now available. For example in 2004 WHO organized a *workshop on the IP rights and vaccines in the DC's*<sup>132</sup>. The legal adviser who presented the preparatory document for this last meeting summarizes the situation in the following way: «It is not possible on one hand to distinguish the efficiency of the IP system for stimulating the R&D from the market dynamics, to which it confers monopoly rights, and on the other hand the market acceptance where this R&D is said to guarantee the patents IP. There is no point in saying that there is no relation between the affluence of a market in human terms and that in terms of profit; this last aspect alone really counts in the functioning of the IP mechanisms.»<sup>133</sup>.

Examining the situation of the last twenty-five years seems to demonstrate that the market logic and the increased profits provided by the IP rights do not work when markets are poor or non-existent. Indeed when the medicines effective protection has increased on average by six years in the member states of the OECD and when the total number of registered products has slightly increased during the same period the average innovation index has remained unchanged<sup>134</sup>.

Moreover between the encouragement effect for R&D and the limitation effect of access to medicines and vaccines the danger lies in the fact, with the TRIPS Agreement, that the prices of medicines and essential vaccines in the DC's increase significantly and thereby offset any hypothetical increase of R&D.

<sup>122</sup> Petite (2003).

<sup>123</sup> Pecoul (2005).

<sup>124</sup> Jennar (2003).

<sup>125</sup> Lorelle (2003).

<sup>126</sup> Lorelle (2003).

<sup>127</sup> See [www.science-generation.com](http://www.science-generation.com) and «MSF Campaign: Access to essential»

<sup>128</sup> Bulard (2004), pp.62-66.

### 2.4.2 The presumed effects of the Agreement on the diseases of the South

<sup>129</sup> See Assoumani (2005).

<sup>130</sup> OMS/OMC (2002), p.23.

<sup>131</sup> OMS/OMC (2002), p.100;

the Box N°14, p.101, broadens the analysis on this theme.

<sup>132</sup> OMS-IVB (2004).

<sup>133</sup> Garrison (2004), p.29;

Christopher Garrison is a legal adviser at WHO.

<sup>134</sup> Trouiller *et al.* (2002).

<sup>135</sup> OMS/OMC (2002), p.107.

### 2.4.3 Medicines and vaccines, sometimes different problematics

For example some of the new medicines which are more effective against HIV/AIDS, paludism and tuberculosis, diseases causing huge human and economic losses, were invented after 1995 and thus can claim a patent protection in a larger number of DC's<sup>135</sup>.

It is worth taking note that the consequences – expected or feared – of the TRIPS Agreement on the health perspectives in the DC's are not necessarily identical when it comes to medicines or vaccines, in the field of R&D and in that of production and distribution as well<sup>136</sup>.

Undoubtedly the production of vaccines suffers less from the patents system than that of medicines; indeed 70 % of the vaccines for UNICEF are produced at present in the DC's through public-private joint ventures. Waiting for a vaccine to be patent free so as to produce it at a low cost can in some cases prove dangerous for public health. With respect to the necessities of DC's in the field of public health it is unacceptable to wait for a patent to have expired, considering how important the needs are in the field of public health. Any promising vaccine should be developed in a fast and effective way<sup>137</sup>.

In theory the TRIPS Agreement foresees mechanisms enabling competition during the validity period of a patent, for example the compulsory licence. But in the case of vaccines the production demands a certain *know how* which is not described by patents and cannot be transferred under a compulsory licence. The result of this is a gap between the know how of the OECD vaccines manufacturers and that of the manufacturers of emerging countries<sup>138</sup>.

The fact that patents can block the access to end products and to processes as well constitutes an important obstacle in the case of vaccines. Indeed for a vaccine there exist different protection levels on "properties" as diverse as for example DNA sequences, adjuvants, *delivery devices* or excipients etc. So to get the right to produce a vaccine under compulsory licence – which does not mean having the capability or the know how – multiple licences must be obtained from multiple partners. Such an effort calls for knowledge and administrative and financial means as well out of reach of most DC's.

<sup>136</sup> See «Differences among Vaccines and other pharmaceutical products in the framework of the TRIPS Agreement», Box N°15, in OMS/OMC (2002), p.107; see also OMS-IVB (2004).

<sup>137</sup> Garrison (2004), p.39.

<sup>138</sup> Garrison (2004), p.3.

### 2.4.4 Conclusion

Contrary to what its defensors say it is unlikely that the TRIPS Agreement and more generally an increased patents protection at the world level stimulate R&D on medicines production and vaccines for forgotten diseases as well. In all cases it is very unlikely that a positive effect of the TRIPS Agreement, if there is any, offsets the expected negative effects in terms of access to medicines and public health in the DC's.

To stimulate interest for neglected diseases it would be necessary to implement explicit and well focused health policies independently from adopting an increased patent protection within the framework of the TRIPS Agreement.